TABLE 169.567(A)—Continued

Space protected	Total number extinguishers required	Type extinguishers permitted		Coast Guard
		Medium	Minimum size	classification
Galley (without fixed sys-	1 per 500 cu. ft	Dry chemical Halon 1211 or 1301 Foam	10 pounds	
tem).		Carbon dioxide Dry chemical Halon 1211 or 1301	10 pounds	B–II.

- (b) The Officer in Charge, Marine Inspection, may permit the use of any approved fire extinguishers, including semiportable extinguishers, which provide equivalent fire protection.
- (c) All portable fire extinguishers installed on vessels must be of an approved type.
- (d) Portable fire extinguishers must be stowed in a location convenient to the space protected.
- (e) Portable fire extinguishers must be installed and located to the satisfaction of the Officer in Charge, Marine Inspection.
- (f) Portable fire extinguishers which are required to be protected from freezing must not be located where freezing temperatures may be expected.
- (g) Each vessel must carry spare charges for at least 50 percent of each size and variety of hand portable extinguishers required. For units that can not be readily recharged on the vessel, one spare extinguisher for each classification carried onboard must be provided in lieu of spare charges.

[CGD 83-005, 51 FR 897, Jan. 9, 1986; 51 FR 3785, Jan. 30, 1986]

§169.569 Fire axes.

(a) Each vessel must carry at least the number of fire axes set forth in Table 169.569(a). The Officer in Charge, Marine Inspection may require additional fire axes necessary for the proper protection of the vessel.

TABLE 169.569(A)

	Length	Number of axes
Over	Not over	
	65	0
65	90	1
90	120	2
120	150	3

TABLE 169.569(A)—Continued

Length		Number of axes	
Over	Not over	Number of axes	
150		4	

- (b) Fire axes must be stowed so as to be readily available in the event of emergency.
- (c) If fire axes are not located in the open or behind glass, they must be placed in marked enclosures containing the fire hose.

Subpart 169.600 Machinery and Electrical

§169.601 General.

- (a) The regulations in this subpart contain requirements for the design, construction and installation of machinery on sailing school vessels.
- (b) Machinery must be suitable in type and design for the purpose intended. Installations of an unusual type and those not addressed by this subpart are subject to the applicable regulations in Subchapter F (Marine Engineering) and Subchapter J (Electrical Engineering) of this chapter.
- (c) The use of liquefied inflammable gases, such as propane, methane, butane, etc., as fuel, except for cooking purposes, is prohibited.

INTERNAL COMBUSTION ENGINE INSTALLATIONS

§169.605 General.

- (a) Generators, starting motors, and other spark producing devices must be mounted as high above the bilges as practicable.
- (b) Gages to indicate engine cooling water temperature, exhaust cooling

§ 169.607

water temperature and engine lubricating oil pressure must be provided and

located in plain view.

(c) All electrical components of the engine must be protected in accordance with §183.410 of Title 33, Code of Federal Regulations to prevent ignition of flammable vapors.

§169.607 Keel cooler installations.

- (a) Except as provided in this section, keel cooler installations must meet the requirements of §56.50-96 of this chapter.
- (b) Approved metallic flexible connections may be located below the deepest load waterline if the system is a closed loop below the waterline and its vent is located above the waterline.
- (c) Fillet welds may be used in the attachment of channels and half round pipe sections to the bottom of the vessel.
- (d) Short lengths of approved non-metallic flexible hose may be used at machinery connections fixed by hose clamps provided that—
- (1) The clamps are of a corrosion resistant material;
- (2) The clamps do not depend on spring tension for their holding power; and
- (3) Two clamps are used on each end of the hose or one hose clamp is used and the pipe ends are expanded or beaded to provide a positive stop against hose slippage.

§169.608 Grid cooler installations

- (a) Hull penetrations for grid cooler installations must be made through a cofferdam or at a sea chest.
- (b) Grid coolers must be suitably protected against damage from debris and grounding by recessing the unit into the hull or by the placement of protective guards.
- (c) Each grid cooler hull penetration must be equipped with a shutoff valve.

§169.609 Exhaust systems.

Engine exhaust installations and associated cooling sytems must be built in accordance with the requirements of American Boat and Yacht Council, Inc. Standard P-1, "Safe Installation of Exhaust Systems for Propulsion and Auxiliary Machinery" and the following additional requirements:

- (a) All exhaust installations with pressures in excess of 15 pounds per square inch gage or employing runs passing through living or working spaces must meet the material specifications of part 56 of Title 46, Code of Federal Regulations.
- (b) Horizontal dry exhaust pipes are permitted if they do not pass through living or berthing spaces, terminate above the deepest load waterline, are arranged to prevent entry of cold water from rough seas, and are constucted of corrosion resistant material at the hull penetration.
- (c) When the exhaust cooling system is separate from the engine cooling system, a suitable warning device must be provided to indicate a failure of water flow in the exhaust cooling system.

§169.611 Carburetors.

- (a) This section applies to all vessels having gasoline engines.
- (b) Each carburetor other than a down-draft type, must be equipped with integral or externally fitted drip collectors of adequate capacity and arranged so as to permit ready removal of fuel leakage. Externally fitted drip collectors must be covered with flame screens.
- (c) All gasoline engines must be equipped with an acceptable means of backfire flame control. Installations of backfire flame arresters bearing basic Approval Nos. 162.015 or 162.041 or engine air and fuel induction systems bearing basic Approval Nos. 162.015 or 165.042 may be continued in use as long as they are serviceable and in good condition. New installations or replacements must meet the applicable requirements of part 58, subpart 58.10 (Internal Combustion Engine Installations) of this chapter.

[CGD 83-005, 51 FR 896, Jan. 9, 1986, as amended by CGD 88-032, 56 FR 35827, July 29, 1991]

FUEL SYSTEMS

§169.613 Gasoline fuel systems.

- (a) Except as provided in paragraph (b) each gasoline fuel system must meet the requirements of §56.50-70 of this chapter
- (b) Each vessel of 65 feet and under must meet the requirements of